

49TH ANNUAL REPORT

FOR THE FISCAL YEAR JULY 1, 1978, TO JUNE 30, 1979

FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES

DOYLE CONNER, COMMISSIONER OF AGRICULTURE

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Letter of Transmittal

The Honorable Robert Graham
Governor of Florida
Tallahassee, Florida 32301

Dear Governor:

To fulfill statutory requirements, it is my pleasure to submit to you and members of the state legislature the 49th annual report of the Florida Department of Agriculture and Consumer Services.

This report lists and points out the services and programs provided by the department for the fiscal year from July 1, 1978, to June 30, 1979. The information contained in this report will reflect the increased importance of the changes in agriculture and consumer needs in our state.

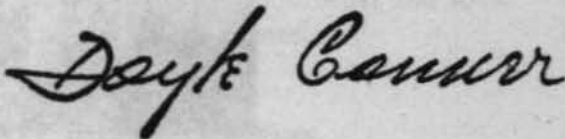
Not only has Florida agriculture continued to grow, but the public has become increasingly aware of activities in the area of consumer services.

There have been significant advances in every division within our department. But to conserve paper and other costs, this report will highlight only a few of the major priorities during the year.

I wish to express my appreciation to all department employees for their dedication and spirit. By like token we are grateful for the assistance and cooperation which we received from every segment of related industries and from all levels of state government.

We offer this report for your consideration and information.

With warm personal regards,

A handwritten signature in dark ink, reading "Doyle Conner". The signature is written in a cursive, flowing style.

Doyle Conner
Commissioner



Doyle E. Conner became Florida's seventh Commissioner of Agriculture in January, 1961. Prior to his election to this office, Conner served 10 years in the state legislature and was the youngest member ever to be elected Speaker of the House. Conner was born in Starke, Fla., on December 17, 1928, and was graduated from the University of Florida with a bachelor's degree in agriculture. He is a past president of the University of Florida Alumni Association, National Association of State Departments of Agriculture and Southern United States Trade Association. In early 1976 Conner was named one of 76 "Florida Patriots" by the Florida Bicentennial Commission.

Harold H. Hoffman became Assistant Commissioner of Agriculture in April, 1965. He joined the department in 1940 as a chemist in the Division of Chemistry's feed laboratory, was named laboratory chief in 1948 and associate state chemist in 1959.

Born on March 29, 1914, in Jefferson County, Nebr., Mr. Hoffman attended elementary and secondary schools in Winter Haven, Fla. He was graduated from the University of Florida in 1938 with a bachelor's degree in chemistry.



DIVISION OF ADMINISTRATION

John S. Shipp was appointed director of the Division of Administration on November 1, 1975. Prior to this he had been employed by the state treasurer's office and the Department of Education as well as having served for six years in the Florida House during the late 1950s. Shipp holds a bachelor's degree from the University of Florida as well as a master's degree from Florida State University. He was born in Williamson, Georgia, on March 17, 1918, and served both in the army and navy during World War II. In addition to his service with the state, Shipp also has experience as a school teacher/administrator and as a publishing company executive.



Bureau of General Services

The Bureau of General Services is responsible for departmental purchasing, maintenance, grounds, duplicating and printing, mail distribution, supplies, communication, and coordinating all records management with Board of Archives and Records Management. Work involves the development of procedures necessary to carry out these responsibilities.

Bureau of Information, Education and Research Services

The Bureau of Information, Education and Research Services is responsible for providing the general public with information regarding those areas that come under department jurisdiction. In fulfilling that responsibility, the bureau processed 25,000 information inquiries during the fiscal year. In addition, 95,000 pieces of literature were distributed.

Utilizing the cooperation of the various media, the bureau prepared 300 news stories for distribution. Broadcast items produced numbered 350 and kept the statewide agricultural radio network supplied with accurate and timely agricultural information.

A total of 100 speeches and manuscripts were also prepared by bureau information specialists. A staff photographer completed 260 photography assignments.

The bureau is also responsible for editing the annual report and an employee newsletter.

A mini-television studio was constructed and some basic video equipment was purchased.

Bureau of Public Fairs and Expositions

The Bureau of Public Fairs and Expositions is responsible for issuing all fair permits and tax exemption certificates to fairs chartered under Chapter 616 Florida Statutes.

It is the duty of this bureau to inspect all midway companies operating at chartered fairs for operational safety, electrical safety and fire prevention requirements.

This bureau coordinates all departmental exhibits and displays at county, regional and state fairs, agricultural expositions, agricultural mall promotions, state and national livestock events held in Florida.

The bureau also distributes the Commissioner of Agriculture Premiums and Awards Revolving Fund. These monies go to the 46 Florida fairs and to many scholarships and judging teams of 4-H Clubs, Future Farmers of America, Future Homemakers of America, and Florida's universities involved in agricultural programs.

Bureau of Management Systems

The Bureau of Management Systems is responsible for providing technical systems assistance to all divisions of the department, as well as providing a centralized data processing service.

The operating objective of the management systems staff is the coordinating and development of management information and control systems to reduce operating time and lower costs, and to assist management operations.

The major areas of responsibilities within the management systems staff are: administrative policies and procedures as related to data processing, systems design for all divisions, special management improvement studies and systems research, and overall coordination of the department's EDP services requirements.

Bureau of Personnel Management and Employee Relations

The primary function of the Bureau of Personnel Management and Employee Relations is to assist the ten operating divisions in recruiting and maintaining the best possible employees to carry out their various programs in compliance with the State Personnel Rules and Regulations; the personnel related laws in Chapter 110, Florida Statutes; Collective Bargaining Contracts; and the state and federal guidelines on Equal Employment Opportunity and Veterans' Preference. In conjunction with this

function, the bureau administers the state uniform pay plan; the benefits program which includes insurance, retirement benefits, workers compensation benefits and the leave program; and maintains the official personnel records. Training and orientation programs for all employees, counseling and assistance to supervisors with employee problems, review and revision of classification of positions to assure proper relationships with duties and pay are all continual operations of the bureau.

The bureau also serves as liaison with the Department of Administration and the Florida Legislature on personnel related matters and, in this capacity, members of this office have served on various task forces during 1978-79 concerned with proposed legislation, rules, changes in the position classification concept on a statewide basis, and assisted in the presentation of the State Personnel Seminar for all personnel practitioners in State Government.

The 1979 Legislature passed major changes in Chapter 110, F.S., which resulted in reorganization of the Department of Administration and, ultimately, additional authority for administration of personnel matters will be delegated to individual agencies which will give the bureau added responsibility but will allow for a greater degree of efficiency in development of programs and problem solving. Changes were also made allowing for additional employee benefits such as six hours of tuition-free course work, establishment of the sick leave pool, and implementation of an additional special holiday for each full-time employee.

Bureau of Accounting and Budgeting

The Bureau of Accounting and Budgeting is responsible for all accounting functions of the Department's revenues and expenditures, which totaled \$67,640,066 and \$63,381,470 respectively in 1978-79. Other functions include property management, federal grant-in-aid activity, planning and budgeting.

On July 1, 1979, the bureau adopted the Departmental Accounting System (DAS). This is a statewide double entry general ledger system which was developed by the Office of the Auditor General. It is a computer-based system whereby accounting and budgeting personnel enter all data into the records by use of on-line data entry computer terminals which are physically located within the bureau.

During 1978-79 the bureau was deeply involved in this conversion to the new system. Many new procedures and requirements were required in this conversion. On-line terminals were placed in the division offices for convenience in making financial and management decisions. In the coming year this bureau will continue to work closely with appropriate committees in an attempt to improve this system for day-to-day management purposes.

DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES 1978-79 Revenue and Expenditures

| | Amount | % OF TOTAL |
|------------------------------|---------------------|---------------|
| Revenue: (By Source) | | |
| Charges for Current Services | \$21,574,825 | 31.9 |
| Licenses and Permits | 200,707 | .3 |
| Use of Money and Property | 6,469,639 | 9.6 |
| Other Agencies | 5,619,575 | 8.3 |
| General Revenue | 33,775,320 | 49.9 |
| Total Revenue | \$67,640,066 | 100.0 |
| Expenditures: | | |
| Salaries and Benefits | \$41,561,816 | 65.6 |
| Other Personal Services | 1,423,486 | 2.2 |
| Expenses | 10,392,122 | 16.4 |
| Operating Capital Outlay | 1,159,962 | 1.8 |
| Law Enforcement | | |
| Salary Incentives | 5,396 | .0 |
| Data Processing Services | 812,226 | 1.3 |
| Payment of Marketing | | |
| Service—U.S.D.A. | 65,283 | .1 |
| Grants and Aids | 882,888 | 1.4 |
| Forestry Research | 75,000 | .1 |
| Automated Testing Equipment | 405,278 | .6 |
| Soil and Water | 386,772 | .6 |
| Indemnities | 1,208,914 | 1.9 |
| Citrus Blackfly | 2,452,831 | 3.9 |
| Fire Ant Control | 225,932 | .4 |
| Debt Service | 352,244 | .6 |
| Certifications Forward | 1,109,842 | 1.8 |
| Statewide Overhead | | |
| (for Federal Programs) | 24,506 | .0 |
| Fixed Capital Outlay | 836,972 | 1.3 |
| Total Expenditures | \$63,381,470 | 100.0 |

DIVISION OF ANIMAL INDUSTRY

Dr. Clarence L. Campbell received his veterinary medicine degree from Ohio State University in 1945. Later that year he joined the Florida Livestock Sanitary Board as a field veterinarian. He became assistant state veterinarian in 1948, acting state veterinarian in 1952 and state veterinarian in 1953. Dr. Campbell was born September 24, 1921, in Indianapolis, Indiana, attending Sebring, Florida, public schools and Florida Southern College.



The Division of Animal Industry has a dual role of protection to the public and service to the industry. Protection to the consumer is afforded by providing an abundant supply of wholesome meat and poultry food products. The health and welfare of Florida's growing livestock and poultry industries are promoted through regulatory disease surveillance, control and eradication programs. The division also registers marks and brands used by cattlemen for identification and proof of ownership of their animals, and provides investigative assistance to local law enforcement agencies and livestock producers in preventing livestock thefts and apprehending offenders.

Florida's geographic location makes it especially vulnerable to the importation of foreign animal diseases, and the heavy trafficking of livestock between states poses the ever-present danger of re-entry of diseases and disease vectors which have been eliminated within the state. The division provides inspection of livestock at markets, on farms, and in transit as a first line of defense in combating disease spread.

During fiscal year 1978-79, exotic Newcastle disease was found in a holding facility of a pet bird importer at the Miami USDA quarantine station. Division personnel cooperated in a task force effort with USDA in eradicating the disease from the premises of the importer and from the pet shops which had received birds from the importer.

The discovery of contagious equine metritis in thoroughbred horses in Kentucky in March of 1978 was an ominous threat to the Florida thoroughbred industry due to the heavy interchange of breeding animals between the two states. Surveillance measures were established which included the testing of thoroughbred horses which had been in Kentucky or which had had contact with horses from Kentucky or from the foreign countries where the disease was first detected. No Florida animals were found to be affected.

The division conducts ongoing programs for the control of equine piroplasmiasis, equine infectious anemia, brucellosis and tuberculosis in cattle and salmonella diseases in poultry. Surveillance inspections for disease vectors, particularly ticks and screwworms, are also carried on routinely at markets and ranches. Four new cases of equine piroplasmiasis were found this year. All four horses were imports from South America and may have been in the incubation stage at the time they were tested for entry into this country. Less than one percent of the horses initially tested for equine infectious anemia were found to be affected.

The number of cattle herd owners electing to participate in the brucellosis adult vaccination program increased significantly during the past year. This substantially reduced the number of reactor animals found which resulted in a considerable savings in indemnity funds. The Florida Cattlemen's Association recommended that the division seek federal funding for the implementation of a compulsory whole herd vaccination program in the state, exempting commercial dairy herds and certified brucellosis free herds. This approach to brucellosis control was approved by the Legislature and negotiations are being conducted with USDA for the necessary federal funds.

Several new test procedures were instituted in the diagnostic laboratories in an effort to increase technical capabilities of the labs. New procedures include (1) serum neutralization tests for equine rhinopneumonitis virus, (2) fluorescent antibody tests for parovirus infection of swine and feline infectious peritonitis, (3) indirect hemagglutination tests for porcine erythrocytosis, and (4) the MIP test for pregnancy in mares.

A large number of cases of eastern equine encephalomyelitis were diagnosed at the laboratories. Actually, during the fiscal year, two peaks of the disease were noted. The first occurred during July and August, 1978,

and the second during May and June of 1979. In all, there were approximately 150 cases, which were widely distributed throughout the state.

The Bureau of Meat Inspection, which is jointly funded by the Department and USDA, continued to furnish slaughter, processing, and sanitation inspection at all packing establishments providing meat and poultry products to consumers within the state, despite a cut back in anticipated federal funds. It was necessary to freeze all vacant positions, and if the federal cut back continues it will be extremely difficult to expand the service to new plants.

The division now has a full complement of investigators in the Marks and Brands Unit. This unit assists livestock owners and local law enforcement officials in investigations involving livestock thefts. During the year 118 cases were reported and investigated which involved thefts of swine, cattle, horses, goats and miscellaneous farm equipment with a total value of \$342,054. Investigations resulted in the recovery of \$24,995 worth of livestock and equipment, and the apprehension and arrest of 29 individuals.

DIVISION OF CHEMISTRY

Dr. Charles H. Van Middeltem, director of the Division of Chemistry since September 1, 1973, was born August 6, 1919, in Bruges, Belgium. He received a bachelor's degree in 1944 and a Ph.D. in biochemistry in 1952 from Cornell University. From 1952 to 1973, he was on the research faculty staff with the Institute of Food and Agricultural Sciences, University of Florida, and was in charge of the Pesticide Research Laboratory in Gainesville.



The primary responsibilities of the Division of Chemistry are to conduct laboratory analyses and provide technical evaluations on samples submitted by department inspectors and other state agencies. The laboratories of this division conduct various chemical, microbiological and physical analyses in order to test and evaluate a wide variety of products sold in the state for the protection of Florida consumers. During FY 78-79, over 350,000 separate determinations and tests were conducted on approximately 58,000 samples of human food, animal feed, seed, fertilizer, pesticide formulations and pesticide residues as well as a wide variety of commodities purchased for use by state agencies.

During the year the division made several advances in its continuing effort to modernize and expand analytical capabilities and increase productivity of laboratory personnel. The Fertilizer Laboratory successfully interfaced a programmable calculator with an autoanalyzer for the automated determination of phosphates, an automatic titralizer for the determination of nitrogen and boron, and an electronic balance for weighing and storing sample data. Instrumental signals are transmitted directly to the calculator and analytical calculations, which were previously done manually, are performed automatically. The Food Laboratory acquired and successfully interfaced a mini-computer with an autoanalyzer and electronic balance for the automated analysis and calculation of protein, phosphate, nitrate, and nitrite. The mini-computer stores information on all samples analyzed or tested by the laboratory, permits rapid data retrieval, generates a complete laboratory report on each sample, and compiles quarterly and annual statistical reports. These time-consuming functions previously had to be performed manually. This laboratory also acquired a fat analyzer to replace the extraction apparatus previously used to determine fat content in meats, nut products, and other foods. The new fat analyzer is more efficient, costs less per sample analysis, and can accurately determine the fat

content in approximately 15 minutes. The Pesticide laboratory increased its analytical capability with the acquisition of a high pressure liquid chromatograph. This instrumental technique is very complimentary with existing gas chromatographic and infrared spectrophotometric techniques and has been used successfully to replace numerous non-specific and time-consuming wet chemical methods. The Chemical Residue Laboratory acquired and installed new gas chromatographs at the Sanford and Fort Lauderdale field laboratories. These modern instruments have significantly expanded the analytical capability of these laboratories to include the low level detection of nitrogen and phosphorus-containing pesticide compounds remaining on various agricultural commodities.

Due to the continued awareness of the aflatoxin problems associated with the feeding of livestock and poultry, the Feed Laboratory has recently improved their aflatoxin analytical capability through the application of high pressure liquid chromatography. This laboratory has also utilized microscopic examinations to detect molds which could produce toxins and has made counts and identifications of these molds when appropriate. Every effort has been made to expedite the prompt handling of consumer complaint samples believed to be associated with animal health problems or reductions in the production of meat, milk and eggs.

Modifications and remodeling of the previous Methods Development Laboratory area have enabled the Food Laboratory to devote additional new space for their instrumental section and develop a special restricted area for the handling and analysis of hazardous mycotoxins. The Methods Development Section had previously moved into a remodeled laboratory which is more centrally located within the Complex, equipped with improved fume hood capacity and provides additional laboratory floor space for future expansion. During the past year, this section has made significant advances in the application of high pressure liquid chromatography for

the detection of parts per billion levels of aflatoxins in a variety of feed and food products, including corn and corn meal, peanut and cottonseed products, and mixed animal feeds. Utilizing a modern self-contained mobile laboratory temporarily on loan from the Food and Drug Administration, the Food Laboratory conducted on-the-site testing involving several food problem areas. Analysis for aflatoxins in corn meal, testing of breeding on shrimp, and examinations of breads for rodent filth have been performed at various locations within the State.

Recently improved testing capabilities of the Commodity Testing Laboratory were utilized to conduct a broader range of more sophisticated tests to evaluate paint and carpet samples for the Department of Education.

Toward the end of the year, a grant was signed between E.P.A. and the department to implement a comprehensive pesticide enforcement program by strengthening the surveillance, monitoring and analytical programs. The Division of Chemistry's analytical responsibility under this grant will be shared by the Bureau of Chemical Residue Laboratory, Pesticide Laboratory and Food Laboratory.

The primary responsibility of the Division of Chemistry is to provide analytical services to the various departments of the State. The division is organized into four main sections: the Food Laboratory, the Pesticide Laboratory, the Commodity Testing Laboratory, and the Bureau of Chemical Residue Laboratory. Each section is headed by a Chief and consists of several staff members. The Food Laboratory is responsible for the analysis of food and feed products, the Pesticide Laboratory for the analysis of pesticides, the Commodity Testing Laboratory for the analysis of commodities, and the Bureau of Chemical Residue Laboratory for the analysis of chemical residues.

The Food Laboratory is the largest section in the division and is responsible for the analysis of a wide variety of food and feed products. It has a staff of approximately 20 people and is equipped with a variety of analytical instruments. The Pesticide Laboratory is responsible for the analysis of pesticides and is equipped with a variety of analytical instruments. The Commodity Testing Laboratory is responsible for the analysis of commodities and is equipped with a variety of analytical instruments. The Bureau of Chemical Residue Laboratory is responsible for the analysis of chemical residues and is equipped with a variety of analytical instruments.

DIVISION OF CONSUMER SERVICES

Jane Wilson Robinson was appointed Director of Consumer Services in August, 1976, by Commissioner of Agriculture Doyle Conner. She served in the Florida House of Representatives from 1970 to 1976 representing Brevard, Osceola, Indian River and Okeechobee Counties. She worked on newspapers from New York to Colorado ending with Washington, D.C., before moving to Florida in 1967.

Mrs. Robinson was born June 22, 1926, in Oklahoma City, Oklahoma. She attended schools in Mexico City, Hawaii, Manila, Philippine Islands and at the University of Oklahoma. She is married to George A. Robinson and they are the parents of four children.



The Division of Consumer Services is designated by law to receive complaints in connection with all consumer transactions in the marketplace and to act as a clearinghouse for such complaints.

Complaints involving the jurisdiction of other agencies are forwarded to them for appropriate action. However, the majority of complaints are acted upon by the division or within the department. The volume of complaints has continued to increase, and they now average nearly 4,000 per month as compared to 1,700 in 1977-78.

The division has statutory authority to enforce the provisions of Chapter 501, Florida Statutes ("The Little F.T.C. Act"), but, in practice, relies primarily on the Department of Legal Affairs for administrative or court action in cases of violation.

The division carries on an extensive program of consumer information and education. Its personnel fill speaking engagements wherever possible. Information leaflets and brochures are produced for distribution. Two monthly newsletters and news releases have found increasing acceptance by both the public and the various media. The division also has the capability of accepting complaints from the deaf through the use of a teletypewriter over its toll-free lines.

Several pieces of legislation have broadened the scope of the division's responsibilities. One, which requires any franchise or business opportunity operating within the state to register and/or post bond with the division, becomes effective October 1, 1979.

No discussion of the division would be complete without emphasizing the role of the Florida Consumers' Council in consumer protection. The Legislature created the council in 1967 by the same law that created the Office of Consumer Services. The Commissioner of Agriculture appoints the members and serves as chairman. The council is limited to twenty members. The statute cites that members are to be "leading members of statewide organizations representing segments of the consumer public so as to establish a broadly based and representative Consumers' Council." Members serve a two-year term with one-half of the membership terms expiring each year.

The council meets at varying intervals, usually three times a year, at the call of its chairman to consider consumer problems and recommend solutions. It assists in promoting consumer education and programs.

DIVISION OF DAIRY INDUSTRY

Jay Boosinger, Director of the Division of Dairy Industry, was born in Bradford, Pennsylvania, December 18, 1939. He is a graduate of Manatee County High School, Brandon, Florida, and a 1961 graduate of the University of Florida, where he received a Bachelor of Science degree in Dairy from the College of Agriculture.

He served as a Dairy Specialist with the Division from 1964 to 1967, prior to his promotion as Assistant Director of the Division, a position he held until his appointment as Director in February, 1976.

Mr. Boosinger is the current Vice-Chairman of the National Conference on Interstate Milk Shipments and has chaired one of the three governing Councils on Interstate Shipments for the past six years. He will act as Secretary-Treasurer for the Dairy Division of the National Association of State Departments of Agriculture for 1978-79. He also has been President of the Southern States Dairy Divisions of the National Association of State Departments of Agriculture, and Past Chairman of the Florida Quality Milk Council.



The Division of Dairy Industry is responsible for the sanitary regulation of the total complex dairy industry within the state of Florida. The purpose of the program is to assure the people of Florida that milk and milk products sold or offered for sale to the public are produced under sanitary conditions, processed and packaged in a clean, sanitary environment on approved equipment and are being offered to the public under the correct designation as to grade, quality and truth in labeling.

The office of the director and three operating bureaus enforce the requirements of the Florida Statutes which they have been charged with enforcing.

Bureau of Dairy Farm Inspection

The Bureau of Dairy Farm Inspection is responsible for all raw milk produced in Florida. This bureau makes sanitary inspections of all dairy farms as required by law, to see that each farm is operated in a sanitary manner and that the raw milk produced is of the highest quality.

Bureau of Dairy Products Inspection

The Bureau of Dairy Products Inspection is responsible for the division program relating to all milk and milk products from the time the milk is picked up at the farm, transported to the processing plant, processed, packaged and delivered to the consumer. All milk plants are inspected to see that they meet the sanitation, construction and equipment requirements as set forth in Florida law.

Bureau of Dairy Laboratories

The Bureau of Dairy Laboratories has six laboratories geographically located near population centers. They perform analyses on all milk and milk products submitted by the Dairy Farm and Dairy Products Bureaus' sampling surveillance program. Milk and milk products are tested for butterfat, solids not fat, added water, bacteria counts, somatic cell counts, shelf life, phosphates, weight and fat adulteration.

During the fiscal year of 1978-79, the division regulated an average of 405 dairy farms, 36 milk processing plants and 30 frozen dessert operations. During the year, division personnel made 2,604 official inspections, submitted 87,897 samples and had a total of 214,992 analyses performed on the submitted samples.

DIVISION OF FORESTRY

John M. Bethea has been Director of the Division of Forestry since January 1, 1970. Born November 4, 1919, at Sanderson, Florida, he took a B.S. degree in Forestry at the University of Florida. He joined the Florida Forest Service as a ranger in Panama City in 1941, left for military service as a commissioned officer in World War II, and resumed employment with the Service in 1946. He was successively District Forester at Panama City, Assistant Chief of Fire Control, Chief of Fire Control and after 1963, the Associate State Forester, a post in which he was deputy administrator of the Division until he became Director in 1970.



The primary goal of the Division of Forestry is the planting, management and protection of one of Florida's most important renewable resources, trees, which provide many environmental benefits and are the raw materials for an annual \$3 billion industry for Florida.

The potential exists for a dramatic increase in the size of the wood/wood-products industry, however, and possibly more importantly, to play a role in solving one of the state's—and the country's—more pressing problems . . . energy.

America's heavy dependence on fossil fuels, especially those imported from foreign countries, coupled with the rapid decrease in the amount of fuel available, has everyone searching for alternate energy sources.

The Division of Forestry, armed with impressive information about the amount of wood available to be used for energy in Florida, began a major program in 1978 to educate local governments and citizens about this possibility. A Wood Energy Coordinator position was established within the division to promote the idea of wood as a chief source of energy, especially waste wood. Research was started to find ways Floridians can save money by using waste wood, wood chips, sawdust, etc., as a substitute or supplement to fossil fuels. The dispersal of this information will be the major responsibility of the Wood Energy Coordinator.

Coordination among the State Energy Office and various institutions and industries are resulting in some switching over from fossil fuels to wood for fuel in their boilers, furnaces, and other energy-using devices. And as a result of more publicity on wood as a cheaper source of energy, the public is buying more wood-burning stoves, and is becoming more aware of wood as a fuel in conducting their businesses.

The division was also vitally interested in saving energy at home, too. A Cost-Cutting Committee was established to collect ideas from division employees on ways to conserve energy and save money, and where possible, these ideas were put into practice.

Savings in another area—money instead of energy—was evident in a number of other division projects, the most lucrative being the equipment rebuild program. During the fiscal year 25 pieces of equipment, ranging from crawler tractors to plows and harrows, were reconditioned at division shops around the state. The cost of the reconditioning was \$94,181—the cost of the parts only; labor was done by division personnel. A savings of \$407,000 was realized by reconditioning the equipment instead of buying new replacements. All this concentration on saving money and energy had no negative effect on the division's goal of providing services for the people of Florida.

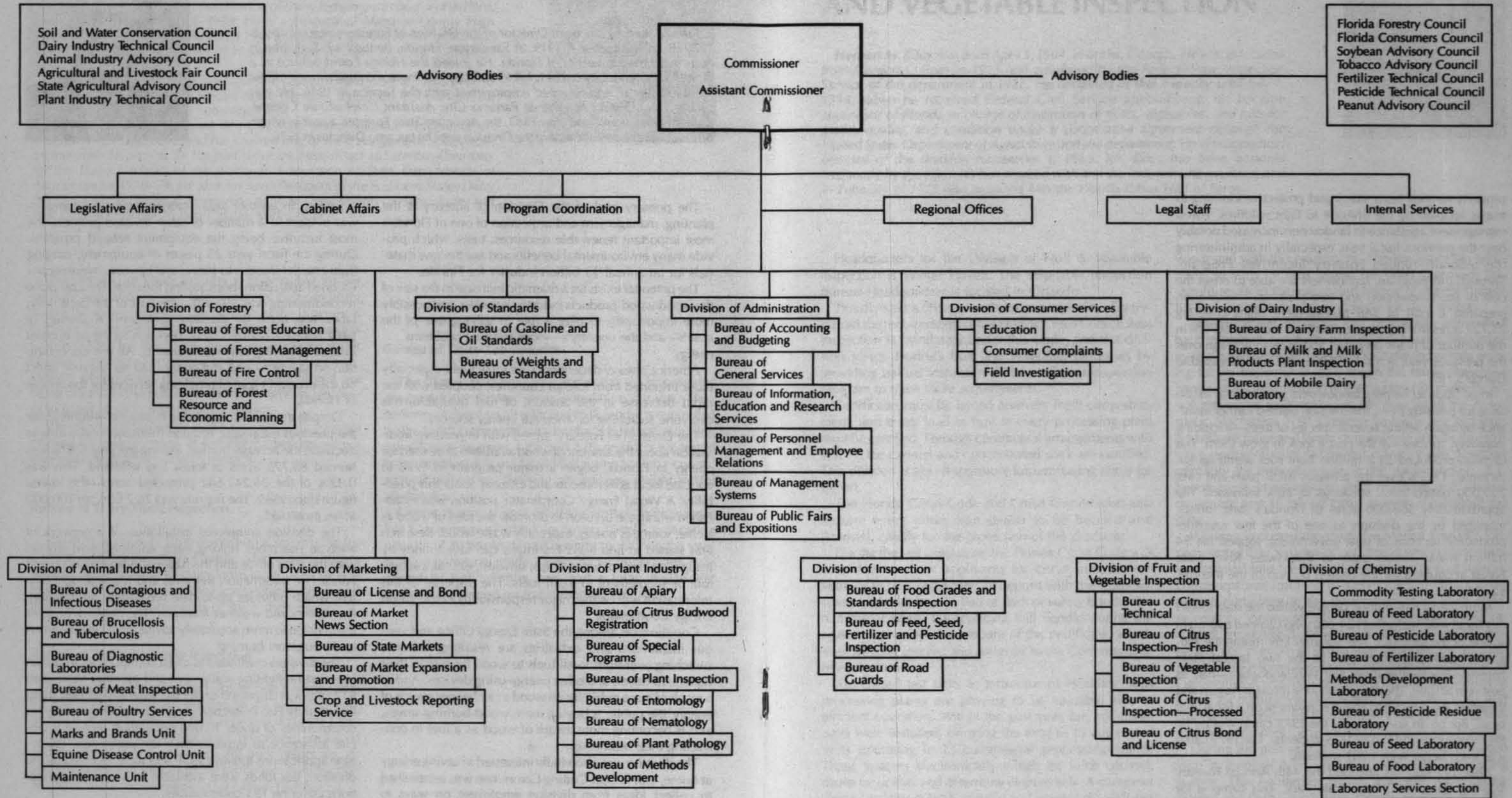
Despite a small increase in the number of wildfires over the previous fiscal year, division firefighters were able to decrease the acreage burned. During the year 6,878 fires burned 85,775 acres of forest and wildland. This was 0.32% of the 26,242,642 protected acres—the lowest figure since 1969. The fire rate was 26.2 fires per 100,000 acres protected.

The division completed installation of a network of teletype machines linking each administrative district with the state office and the national Administration and Forest Fire Information Retrieval and Management System which provides up-to-date fire danger information, fire reports and weather forecasts. The network enables the division to more accurately advise local citizens when to do outdoors burning.

The division continued to assist communities to obtain low-cost firefighting equipment and training. More than \$72,000 was dispersed under the federally-funded Rural Community Fire Protection program. Under this program communities of under 10,000 population receive financial assistance to improve their fire protection. Eighty-nine applications totaling \$356,493 were received by the division, but funds were available for only 70 applications covering 153 communities.

Additional assistance to local fire departments was continued in the form of reconditioned federal excess

ORGANIZATIONAL CHART



property ranging from sirens and protective clothing to trucks adapted by the division to fight wildfires. Forest management assistance to landowners increased notably over the previous fiscal year, especially in administering the federally-funded Forestry Incentives Program. Through this program, landowners are able to offset the cost of site preparation and tree planting. The division prepared a total of 346 management plans covering 75,731 acres in this program. That's an increase of 70% in the number of plans prepared and 50% in acreage over the previous year. A total of \$805,000 was allocated to Florida's FIP.

In addition to helping landowners get financial assistance for planting trees, the division offered further assistance by again selling several species of trees—including improved species—at the cost it took to grow them. The division produced 51.2 million bare root seedlings (an increase of 8.1% over the previous fiscal year) and over 230,000 potted stock seedlings (a 28% increase). The approximately 306,000 acres of Florida's state forests, managed by the division as one of the few revenue-producing sections of state government, topped the \$4 million mark. Timber sales at Blackwater River State Forest accounted for the biggest portion of the income, \$2,915,046.

More than a half-million people visited the state forests this fiscal year, including 124,200 who camped overnight at one of the facilities. The Summer Environmental Program, conducted each year at the two largest State Forests—Blackwater River and Withlacoochee—had its best year to date. The camps run June through August and therefore it is difficult to assess enrollment on a fiscal year basis. But on an annual basis, the 1978 camp was by far the most successful to date (815 students). The 1979 camp was even better with 1,281 students.

Also, 197 students attended the 44th Annual Forestry Training Camp at O'Leno State Park. This camp is for Future Farmer of America students and is designated to increase their knowledge and interest in forestry matters.

DIVISION OF FRUIT AND VEGETABLE INSPECTION

Herbert M. Riley was born April 5, 1904, in Butler, Georgia. He was graduated from Gordon College in 1923 and employed by the Federal-State Inspection Service of the department in 1927. He remained in that capacity until July 1, 1939, when he received Federal Civil Service appointment. He became supervisor of Florida in charge of inspection of fruits, vegetables, and nuts for grade, quality, and condition under a cooperative agreement between the United States Department of Agriculture and the department. He was appointed director of the division November 1, 1963. Mr. Riley has been honored frequently by the agencies he's worked with and the industries he oversees, and in February of 1978 was inducted into the Florida Citrus Hall of Fame.



Headquarters for the Division of Fruit & Vegetable Inspection is Winter Haven. The Vegetable Inspection Bureau Headquarters is located in Orlando.

This division is charged with the responsibility of carrying out the requirements of the Florida Citrus Code. Citrus inspection is mandatory under this Code, and this division serves Florida's fruit and vegetable industries by providing trained inspectors and an efficient inspection program to meet these requirements.

Certificates must be issued on every fresh citrus shipment, and every load of fruit in every processing plant must be certified. Through contractual arrangements with USDA, the canned and concentrated pack are certified. This division is also responsible for fumigating citrus for export.

The Florida Citrus Code and Citrus Commission also require every citrus fruit dealer to be bonded and licensed, chiefly for the protection of the producer.

During the last legislature, the Florida Citrus Code was amended to allow applicants for citrus fruit dealer's licenses to post certificates of deposit with the Commissioner of Agriculture in lieu of cash or surety bonds. The number of boxes an applicant will handle during the season determines the amount of the certificate, which must be fully insured and assigned to the Commissioner of Agriculture.

Automated test units in testrooms of Florida's citrus processing plants are proving to be valuable aids to efficient operation. Within the past year, ten additional units were installed, bringing the total to 15 automated units operating in 13 commercial processing plants. These systems electronically weigh for juice content, titrate for acidity and determine degrees brix. A computer then calculates pounds of juice and pounds of solids per box, and prints out the official inspection certificate. These results are more accurate than those obtained manually, as all human error is eliminated. Approximately 62% of the total fruit volume processed last season

was tested with this equipment. The leasing of ten additional systems for next season has been approved; this should result in the automated testing of approximately 85% of the processed fruit volume for next season.

The automatic extractor has practically eliminated hand reaming for maturity at fresh fruit houses. No longer must a packinghouse have long shut-down periods waiting for an inspector to go through the time-consuming hand procedures involved in testing citrus for maturity. All volume citrus packinghouses are now using the Automatic Machinery 2701 Extractor which is fast, efficient, and allows more and larger samples of fruit to be run with more uniform results. While this extractor was designed primarily for inspection use in the packinghouse, it is becoming a very popular field machine and several dozen are now in use by citrus growers throughout the state.

Working in cooperation with the Market Research Department of the Department of Citrus, a new program was inaugurated into the Statistical Section this past season. Equipment was installed to gather merchandising information pertaining to the destination of all fresh citrus shipments. Approximately 450 destinations were recorded, including 20 foreign countries. Data on the fruit variety and number of boxes was collected on all shipments. This information was transmitted by computer to Gainesville. It was then processed by the Department of Citrus for publication in monthly and annual fresh fruit shipments reports, for distribution to fresh fruit packers and Department of Citrus merchandising representatives.

During the past year, the Fiscal Section was provided with a terminal tying into the state-wide accounting system. This equipment makes available more timely budget and cash information, thereby enabling the division to improve its investment program for excess citrus inspection trust funds.

Fumigation is required for all fruit going to Japan. Meeting the stringent requirements of environmental

DIVISION OF FRUIT AND VEGETABLE INSPECTION

agencies on fumigation has been a real problem, but during the past season, the Fumigation Bureau has been able to meet every requirement. Monitoring equipment was installed to determine concentrations of EDB (Ethylene Dibromide) vapors in areas that department personnel routinely frequent, and alarms are sounded if tolerances are exceeded. Air samples, provided by means of small vials worn by all fumigation personnel, are taken regularly to assure personnel that they are not overexposed to EDB vapors. All NIOSH (National Institute for Occupational Safety and Health) safety measures and precautions have been followed, and additional precautions other than those required, have also been taken.

The Vegetable Bureau, with the cooperation and at the request of many shippers in the state, has recently undertaken a quality-control inspection program. This program provides the shipper with continuous inspection to help maintain quality control, as well as having an inspector available to inspect and issue certificates on any fruit shipped for export or domestic use. Shippers who have taken advantage of this program have been well pleased; it gives them the opportunity to operate more efficiently and at a lower cost per package. The program also enables the bureau to keep and maintain work for its inspectors during slack periods.

DIVISION OF INSPECTION

Vincent Giglio joined the department as an inspector in 1953. Following promotions to supervisor and assistant director, he was appointed division director October 1, 1967. A native of Tampa, he was educated in the public schools and received a degree in horticulture in 1949 from the University of Florida, after serving in the Army Air Corps from 1943-45. He recently retired from the Air Force Reserve with the rank of Colonel.



The headquarters of the Division of Inspection and two of its bureaus (Feed, Seed, Fertilizer & Pesticide, and Food Grades & Standards) are located in Tallahassee. The third bureau, Road Guard, is headquartered in Fanning Springs.

The primary purpose of the division is to protect consumers against retail and production shortage, deception or abuse, and to protect industry against unfair competition.

Among this division's responsibilities are feed, seed, fertilizer, and pesticide inspection; food grades and standards (including poultry and egg) inspection; and inspection of vehicles transporting agricultural, horticultural and livestock products.

During the course of several million inspections over the past year, premises, vehicle contents, and packages were inspected for conformance with applicable laws and regulations. Samples were drawn for laboratory analysis, packages weighed, adulterated products destroyed or placed under stop-sale orders, and various other actions taken to insure or bring about conformance with regulatory provisions of a dozen Florida statutes and related federal requirements.

Bureau of Food Grades and Standards

The Food Grades & Standards Bureau began enforcing terminal sales dates on shellfish in retail outlets this year in conjunction with an interagency cooperative agreement with the Department of Natural Resources, part of a continuing effort to increase the effectiveness of each agency's respective regulatory program while avoiding duplication. In a concerted action to correct sanitation problems in large food warehouses, several establishments were temporarily closed, and large quantities of food stop-saled, analyzed, sorted, and destroyed. Persistent rodent infestations in a large group of bakeries were given enforcement priority. Noting an increasing inci-

dence of excessive fat in ground beef with mounting meat prices, a crackdown was instituted on these violations. Heavily adulterated honey from out-of-state producers was discovered, stop-saled and returned to the point of origin in coordination with the regulatory officials of that state. Egg grading inspections at retail level were accelerated. During the Thanksgiving-Christmas holiday season a widespread incidence of shortweight was discovered in large hams and turkeys; investigation revealed questionable weighing procedures and these were corrected. A special training course was conducted to increase inspectors' expertise in handling of food salvage operations.

Bureau of Feed, Seed, Fertilizer, and Pesticide

The Feed, Seed, Fertilizer & Pesticide Bureau continued the monitoring of aflatoxin levels in corn and other susceptible feed and food products. Medicated feed mill inspections were continued under contract with the Federal Food and Drug Administration. The program of weighing bulk feeds and fertilizers improved and broadened. Pesticide special local needs and exemptions, along with the monitoring of pesticide applications and experimental use permits were given increased attention. An expanded pesticide regulatory grant was negotiated with EPA. The grain grading program, conducted for several years under federal standards, was turned over this year to USDA. Inspectors' territories were realigned to improve responsiveness to consumer needs.

Bureau of Road Guard Inspection

The Road Guard Bureau began instituting new procedures in vehicle inspection and regulation of transported products. In the wake of kidnappings and murder, emergency measures were taken to improve the department's capability to meet the threats brought by an increase in contraband movement. Assistance and support from other agencies and the Legislature provided badly needed resources to increase the safety of personnel while maintaining effectiveness of our regulatory program. Priority was assigned to bringing about improvement in equipment, training and qualification of personnel, communications system, organizational structure, and salaries and benefits. Much of this has been or is in the process of implementation, although the pay scale and benefits remain below those necessary to attract and retain qualified personnel.

DIVISION OF MARKETING

John D. Stiles served in the U.S. Marine Corps during World War II for three years and was employed as director, division of marketing, for the West Virginia Department of Agriculture before joining the Florida Department of Agriculture in March of 1962, as chief of the state marketing bureau section of the division of marketing. He became assistant director in 1964, and director in 1966. Born in West Virginia on September 5, 1924, he was graduated from the public schools there and received a bachelor's degree in agriculture from West Virginia University in 1950.



The Division of Marketing provides marketing services to Florida agriculture in a number of ways. The division provides timely and unbiased estimates of Florida crop and livestock production; gathers, analyzes and disseminates information concerning the current supply, demand, quality, price and movement of Florida agricultural products; maintains and operates 15 farmers' produce markets and 2 livestock auction markets; assists Florida agricultural commodity groups in planning, developing and implementing sales promotion programs and provides consumers with information on the use of Florida agricultural products; licenses and requires bonding of dealers in agricultural products in Florida; carries out activities designed to minimize inefficiencies existing in the distribution of Florida agricultural products and provides technical marketing assistance to agricultural groups.

During the 1978-79 year the division was actively involved in the Southern United States Trade Association's Fourth International Food and Agricultural Trade Show in New Orleans. Participation by Florida exporters was at an all time high. Governor Graham attended and participated in the show activities; the first governor to become so involved since the show's inauguration.

There was a trucker's strike at the height of the watermelon season. Division personnel were very busy during the month of June working to minimize the effect of the strike. Efforts were successful to a degree as watermelons continued to move to market, although at a reduced rate.

Value of products moved through the State Farmers' Markets reached an all time high of \$182,281,830 during the 1978-79 season. This was a 25 percent increase over the previous season. Plans have been developed for rebuilding the Pompano market. This will provide a facility which will better meet the needs of present day produce marketing.

The October forecast for oranges was 167.0 million boxes. Actual harvest was 164.0 million boxes for the season. This was an error of only 1.8 percent from the original forecast; which by any measure is exceptionally good. Other varieties were forecast with equal accuracy. A special research program was carried out to determine relationships between weight and size of individual fruit in order to develop procedures for improving citrus forecasts.

The License and Bond Law was reviewed by the legislature under the Sunset Act. Information and recommendations were made to the Senate Governmental Operations Committee during the review process. The review resulted in the determination that the law is needed and its repeal would result in economic harm to the state. An amendment made on the floor of the House excludes tropical foliage plants from the law. This has created severe problems in administering this program.

A study of methods of providing producer protection in the market place has been made. The purpose is to determine if there is an alternate to the License and Bond Law which could better serve the needs of Florida agricultural producers. Programs operating in other states have been studied and a working draft of alternate programs have been worked out. Additional study, evaluation and industry involvement is needed before a determination can be made as to what producer protection program is in the long run best interest of Florida agricultural producers.

The Bureau of Market News was instrumental in the initiation of a pilot truck rate report to aid the shippers of perishable Florida commodities. The six month pilot, conducted by Fruit and Vegetable Market News in Winter Park concluded in June of this year. The report was met with enthusiasm. A similar report is now issued weekly by USDA.

The Florida Market Bulletin, the oldest continuing state publication, received a facelift this year. In late December the mailing list was placed on computer allowing the staff up-to-the-minute access to subscription problems. In June the mailing list was "purged" of those no longer wishing to receive the publication. As of June 30, there were 45,860 subscribers.

A new dimension was added to the work schedule for the Bureau of Market Expansion and Promotion. Normally, promotion activities begin to slow down in late spring. However, for the first time there was no slow down this past spring and summer as the bureau was very busy with big promotions on limes, avocados and potatoes. As the lime and avocado industry saw prospects for a record crop they requested and received assistance in developing and carrying out a very extensive sales promotion program. This was a first time for a major Florida lime and avocado sales promotion. Results achieved indicate that we should expect this to be an annual event for the future.

Due to low prices and lack of market demand, the Hastings potato growers requested help in moving their product. Bureau personnel hurriedly put together an aggressive sales promotion program which contributed substantially to the movement of the crop to market. This was the first time that such a promotion program for Florida potatoes has been tried and it created such a favorable reaction that it could develop into an annual event.

DIVISION OF PLANT INDUSTRY

Halwin L. Jones was employed in 1949 as an inspector with the State Plant Board, which became the Division of Plant Industry in 1961 under government reorganization. He was assistant plant commissioner and assistant director from 1951 until November, 1964, when he became director. Mr. Jones was born March 7, 1924, in Crescent City, Florida, and was graduated from the University of Florida in 1949 with a bachelor's degree in agriculture and in 1952 with a master's degree in agriculture.



The Division of Plant Industry's primary responsibility as the plant pest regulatory agency for Florida is to protect the state's horticultural industries from plant pests which could pose serious economic threats.

The division is responsible for inspection and certification of all nurseries and stock dealers, non-nursery certification, and other special certification programs and regulatory duties in the plant industry.

The division was restructured during the 1978-79 fiscal year. Restructuring affected the Bureau of Plant Inspection more than any other bureau in the division because the largest number of personnel is employed in this bureau. Prior to restructuring, the bureau was divided into five regions and 48 districts. Fruit fly survey and trapping was conducted by personnel in the Bureau of Special Programs.

Under the restructured organization, the Bureau of Plant Inspection consists of three regions, nine area supervisors, and 69 districts with each district inspector responsible for all activities within the district. The technician positions formerly responsible for fruit fly detection and formerly under the Bureau of Special Programs were upgraded to Agricultural Products Specialist II positions and transferred to the Bureau of Plant Inspection where they were assigned to newly created districts.

The citrus blackfly program involved the Bureau of Special Programs in a major eradication effort during the past year. During the winter months, several meetings were held to discuss and review the status of the citrus blackfly program with CBF technical committee and advisory council members. As a direct result of these meetings, all control operations were halted in Dade, Broward and Palm Beach counties, and a strong survey and regulatory program was continued. It was decided that all small infestations found outside of these three counties would be eradicated, as long as the state and USDA had the capability.

The citrus blackfly was found in Bonita Springs on May 18, and an eradication program was initiated. However, as survey progressed, numerous infestations were found, and it became very obvious that the size of the infestation

taxed the ability of the USDA and the state beyond that which the budget would permit. A decision was reached to use the Bonita Springs infestation as a testing ground to continue monitoring the efficacy of the parasites. Since this area is isolated from the main citrus-producing area, it is an ideal place for testing parasites in an isolated area.

The citrus blackfly parasite rearing laboratory is now in operation, and increased productivity is expected. These parasites will be used to help achieve eradication behind the spray program and in any area found infested where parasites are involved. The program is presently proceeding as expected.

The number of arthropod specimens received by the Bureau of Entomology more than doubled over the past year. The Florida State Collection of Arthropods now has more than 2,000,000 identified specimens.

During this fiscal year there were requests to introduce 105 species of insects (of which 33 were denied) into the biological control laboratory, and seven species of field releases.

USDA personnel are continuing studies of biological control of aquatic weeds. An ichneumonid, *Campoletis flavicincta*, (Ashmead), has been imported from Uruguay and released from quarantine for eventual field release against the fall armyworm. The weevil, *Litodactylus leucogaster* Marsham is due for release this summer. A cooperative program on the parasite, *Prospaltella lahorensis* Howard, by personnel of the University of Florida's Institute of Food and Agricultural Sciences (IFAS) and the division shows great promise of natural control of the citrus whitefly.

During the past year, the Bureau of Nematology conducted a survey to determine the distribution of cabbage cyst nematode, *Heterodera schachtii*, in some cabbage producing areas. Based on survey results, this serious nematode pest remains confined to previously known infested areas. Pathogenicity studies were also conducted to evaluate the damage caused to economic plants by nematodes which occur in Florida. The economic potential of many nematodes which are found in this state is unknown on many crop plants. Results of these

greenhouse studies provide information which assists bureau personnel in making better evaluations of the economic significance of nematodes in crop production.

Three citrus introductions were sent to the Bureau of Plant Pathology's quarantine facility in 1979, and are presently being indexed for the presence of viruses. These introductions are *Fortunella crassifolia*, a kumquat from China; *Citrus limon*, a lemon from Iran; and *Citrus sinensis*, a sweet orange from China.

Sugarcane rust, caused by the fungus *Puccinia melanocephala*, was first found in Florida on March 23 at the USDA Canal Point Research Station, and subsequently at the U.S. Sugar Corporation research planting at Clewiston. Rust was later found at numerous experimental test plots throughout the sugarcane growing area and later in field plantings. Eradication at this point does not seem feasible. Regulatory activities have concentrated on the movement of products, equipment, and on propagative parts of sugarcane. The disease is becoming widespread in the sugarcane production area around Lake Okeechobee and also was found in USDA breeding plots at the Plant Introduction Center, Miami, Ft. Pierce, and Gainesville.

Responsibilities of the Bureau of Budwood Registration were significantly broadened during the past year. As a result of division restructuring, the bureau gained two additional positions and assumed responsibility for the budwood registration activity previously performed by the Plant Inspection Bureau in Polk and Highlands counties. This change will free three district plant specialists to devote more time to new pest survey and other plant inspection duties.

The bureau participated in the USDA distribution of budwood of a new tangerine hybrid, "Sunburst," this past spring. By the end of the fiscal year, 15,567 budeyes had been distributed to Florida growers through the validation program.

A new apiary inspector's position was funded by the Florida Legislature in 1979. The district for the new position will include Okeechobee, Highlands, St. Lucie, and Martin counties, with headquarters in Okeechobee.

The Bureau of Methods Development's Imported Fire Ant Program was reduced from six positions to three during the last year. Environmental Protection Agency (EPA) registration of Mirex bait was discontinued on July 1, 1978. To date, there is no chemical replacement for Mirex bait that can be used in areas of agricultural production for the control of the imported fire ant. At the present time, it does not appear that an effective replacement for Mirex bait will be available in the immediate future. An American Cyanamid product is the most promising candidate but will probably not be available until 1981.

The 1978-79 Legislature passed a bill entitled Preservation of Native Flora of Florida, which designates the responsibility for enforcement of the law to the division. The bill also lists plants considered endangered and stipulates that movement of three or more plants on the list must be accompanied by a permit issued by the DPI.

Striga gesnerioides, a witchweed native to Africa, was found near Bartow in October. Initial survey revealed this parasitic plant to be established in Polk, Lake, and Orange counties.

A test plot was recently established near Bartow, including cowpeas, tomatoes, corn, peanuts, soybeans, sweet potatoes, bush beans, lima beans, and hairy indigo, a cover plant found throughout Florida. Hairy indigo is the plant identified as a host in this state, and was interplanted as an indicator plant in the test plot containing a wide variety of potential host plants.

DIVISION OF STANDARDS

Sydney D. Andrews was born in Tallahassee on July 23, 1915. He attended Florida State University and Biarritz University in France. During World War II he served in Europe with the U.S. Corps of Engineers. In 1933 he joined the department as a laboratory assistant, was later promoted to assistant oil analyst, and then to chief of the Petroleum Inspection Section. In 1963 he was made assistant director of the division and then director in 1968. He is past chairman of the National Conference on Weights and Measures and currently vice president and chairman of the Committee on Petroleum Products and Lubricants for the American Society for Testing and Materials. He has been appointed by the President to serve on the United States Metric Board.



The Division of Standards is responsible for administering Florida's gasoline inspection, anti-substitution, brake fluid, antifreeze and weights and measure's laws. This work is carried out through a coordinated program of field and laboratory testing.

The division headquarters and main laboratory are located in a modern testing facility in Tallahassee. In the field, the division has a highly trained inspection force conducting a variety of tests on all kinds of commercial weighing and measuring devices and drawing fuel samples for quality analysis in the laboratory. Specialized equipment such as mobile laboratories and large scale test units equipped with up to 24,000 pounds of test weights add to the completeness of the program. A branch laboratory having the latest fuel testing and weights and measures calibrating equipment is located in Port Everglades, serving the needs of consumers in South Florida.

Bureau of Petroleum Inspection

In the division's Bureau of Petroleum Inspection, the testing of petroleum products, brake fluid and antifreeze from both a quality and quantity standpoint safeguards both consumers and the industry.

Gasoline is checked for antiknock quality, volatility, sulfur, lead and to be certain it has not been contaminated with water, foreign material or other kinds of fuel. The quality of diesel and heating fuels is also tested to be certain safety and performance standards are met. Brake fluid is an important part of the vehicle braking system and its reliability and performance are assured through a mandatory registration-quality inspection program.

Petroleum inspectors make more than 170,000 annual tests on gasoline pumps, vehicle tanks and other kinds of petroleum meters at wholesale and retail outlets. Those found inaccurate or incorrect are either condemned or placed under correction order.

The current energy situation is causing a growing number of consumer complaints and questions about the accuracy of service station pumps and the quality of gasoline. In addition to its regular inspection activities, the bureau investigates these complaints and it is significant that, although there is increased public awareness about fuels, there have been no significant increases in the number of fuel quality or petroleum measurement violations.

Gasohol, a mixture of 90% gasoline and 10% anhydrous ethanol is becoming a familiar word to Florida motorists. Anticipating the introduction of gasohol into Florida retail outlets, bureau laboratories began testing gasoline-alcohol mixtures last year. Gasohol must be registered with the department prior to sale and it is the bureau's job to see that gasohol, like any other fuel, meets state performance standards.

Bureau of Weights and Measures

The Bureau of Weights and Measures inspects and tests weighing and measuring devices throughout the state to assure fair and accurate transactions in the market place. Laboratories of the bureau house the Primary State's Standards, which are directly traceable to national standards in Washington, D.C. From the laboratory, state weights and measures inspectors and other regulatory personnel receive calibrated standards and equipment to field test all commercial weighing and measuring devices used in Florida.

Each year, the bureau performs more than 85,000 inspections, tests and calibrations of all kinds of scales, taximeters, odometers, linear and fabric-measuring devices, grain moisture meters and packaged goods.

Last year, the bureau expanded its pilot grain moisture inspection to a full-scale program. It also began inspecting farm milk tanks throughout the state for accuracy.

In 1979, the bureau will add an additional mobile weight test unit to its vehicle scale inspection program. The new unit is a departure from the traditional design and will handle up to 40,000 pounds of calibrated test weights.

Recognizing the importance of owner and user appreciation for weighing and measuring devices, the bureau encourages and sponsors self-maintenance programs. Its laboratories certify weights and other measurement standards for authorized scale mechanics and industry. It cooperates with county and municipal governments in developing programs at the local level, giving weights and measures the broadest possible coverage.

The Bureau is equipped with metric measurements standards and expertise in metric so that it can assure fair and accurate transactions for consumers and merchants using devices that measure in the metric system.

FLORIDA AGRICULTURE



The strength of Florida's economy, more than most people realize, rests to a vital extent on the strength of Florida's agriculture. Cash receipts from marketings of agricultural products in 1978 totaled nearly \$3.6 billion, with retail sales estimated at five billion dollars. Coupled with the purchase of over *six billion dollars in goods and services by agricultural producers and agriculture-related enterprises, agriculture becomes a rather substantial contributor to our state's economy.

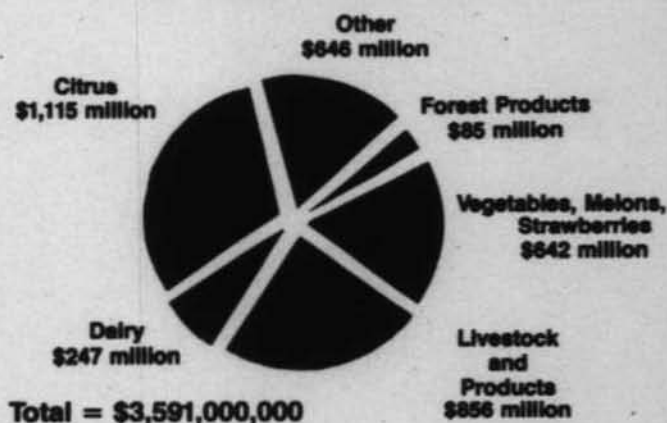
Total value of all land and buildings on Florida's 35,000 farms in 1978 was \$12.8 billion. Florida boasts 16 million acres in commercial forest land, 831,235 acres of citrus groves and 13.0 million acres of other types of farms and ranches.

Florida agriculture employed 112,000 on-farm workers—31,000 family workers and 81,000 wage earners in 1978. The average investment in land and buildings per agricultural worker in Florida is \$114,590.

The following chart and tables show how much each crop returns to Florida's farmers and how income is returned to the economy for expenses directly related to farming.

*University of Florida estimates \$7.8 billion for 1977, the latest year available.

1978 CASH RECEIPTS FROM MARKETING Florida's Major Crop Groups



1978 FARM PRODUCTION EXPENSES IN FLORIDA

| Item | Dollars ¹ |
|---|------------------------|
| Operating Expenses: | |
| Hired labor | 533,300,000 |
| Feed | 275,500,000 |
| Fertilizer & lime | 200,900,000 |
| Repairs & operation of Capital items | 166,200,000 |
| Seed, plants & trees | 53,800,000 |
| Other operating expenses | 340,000,000 |
| Livestock | 43,900,000 |
| Total Operating | 1,613,600,000 |
| Other Expenses: | |
| Depreciation of farm capital | 203,800,000 |
| Taxes and Rent | 101,100,000 |
| Mortgage Interest | 132,000,000 |
| Total Other | 436,900,000 |
| Total Farm Expenses .. | \$2,050,500,000 |

¹Source: USDA; does not include data for some forest products and horses.

1978 CASH RECEIPTS FROM MARKETING OF FLORIDA AGRICULTURAL AND FOREST PRODUCTS

| Crops | Dollars ² |
|--|------------------------|
| Citrus | 1,114,849,000 |
| Vegetables, Potatoes, Melons & Strawberries | 642,221,000 |
| Forest Products | 85,000,000 |
| Sugarcane | 168,909,000 |
| Tobacco | 30,944,000 |
| Other Fruits and Nuts | 18,831,000 |
| Greenhouse and Nursery Products | 271,123 |
| All Other Crops | 142,215,000 |
| Livestock | |
| Dairy Products | 247,261,000 |
| Cattle and Calves | 357,851,000 |
| Poultry and Eggs | 191,168,000 |
| Hogs | 36,275,000 |
| Honey and Beeswax | 11,763,000 |
| Other Livestock | 11,445,000 |
| Grand Total | \$3,059,003,123 |

²Source: USDA, except forest products, which include sales from commercial timberlands as estimated by FDA&CS.